REMARKS

Claims 1-18 are pending.

Claims 1-18 stand rejected.

Claim 1 has been amended

Claims 1-18 are hereby submitted for review and consideration.

No new matter has been added.

In the Office Action, the Examiner has rejected claims 1-18 under 35 U.S.C. § 112 because independent claim 1 is vague and indefinite. The Examiner has continued this objection from the previous Office Action, indicating no further grounds for the rejection.

Applicant begin by noting that the standard for definiteness under the second paragraph of 35 U.S.C. § 112 is merely that the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Furthermore, the definiteness is further examined in view of: A) The content of the particular application disclosure; B) The teachings of the prior art; and C) The claim interpretation that would be given by one processing the ordinary skill in the pertinent art at the time the invention was made. See MPEP 2173.02

Applicant would further like to reiterate that an indefiniteness rejection should not be used as a substitute for a breadth or broadness argument. See *In re Miller*, 441 F.2d

689, 169 USPQ 597 (CCPA 1971) and MPEP 2173.04. Thus, if the scope of the subject matter embraced by the claims is clear, and if the applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. § 112, second paragraph.

In the prior Office Action, the Examiner, in support of the indefiniteness rejection, states:

> "The claim provides for a flame retardant coating layer that is made from a ***non-descript material*** based on a ***non-descript polymer*** obtained from a ***nondescript polymerizable liquid composition*** that contains an ***unidenitifed precursor*** for said polymer. At best one can construe that functional groups are present somewhere." (emphasis added)

However, this language hints that what the Examiner is intending is a breadth argument and not an indefiniteness argument. The material in the claims is not "non-descript." Although the limitations may be considered broad by the Examiner, they are in fact described sufficiently as explained below.

As noted in the previous Amendment, claim 1 is defined by three principal elements: 1) a transmission element; 2) a flammable element; and 3) a flame retardant coating layer surrounding the flammable element.

It appears from the rejection that the Examiner is particularly objecting to the definiteness of the limitations to the flame retardant coating layer.

Applicant submits that the definiteness of the limitations for this element are not vague. Possibly the Examiner may consider these limitations broad, but one of ordinary skill in the art, after reading the specification and claim in its entirety, could certainly identify the metes and bounds of the claim.

Claim 1 simply defines that the flame retardant coating layer is a crosslinkable resin that includes a polymer. This is not non descript or indefinite. Claim 1 further includes the limitation that the polymer that forms the flame retardant coating layer is formed from a polymerizable liquid composition that includes the polymer precursors. The precursors include functional groups selected from any one of acrylates, methacrylates, epoxies, vinyl ethers, allyl ethers, and oxetanes.

Thus, one of ordinary skill in the art reading this application specification and claims would understand that the polymer could basically be any polymer, as long as it is: 1) is flame retardant; and 2) includes at least one of the following functional groups acrylates, methacrylates, epoxies, vinyl ethers, allyl ethers, and oxetanes. The final limitation for the polymer is that the polymer must also include phosphorus functional groups.

It is clear from the language of claim 1, what the metes and bounds of the claim are. As such, Applicant requests that the Examiner reconsider the rejection of the claims under 35 U.S.C. § 112 in view of the above comments.

Turning now to the substantive rejections, the Examiner has rejected independent claim 1 under 35 U.S.C. § 103 as being unpatentable over Hasegawa et al. (U.S. Patent No. 6,755,995) in view of Hall (U.S. Patent No. 6,025,422).

Applicant respectfully disagrees with the Examiner's rejection and submits the following remarks in response.

The present invention as claimed in independent claim 1 is directed to a flame-retardant cable having a transmission element a flammable element and a flame-retardant coating layer of cross-linkable resin surrounding said flammable element. The flame-

retardant layer includes a polymer obtained from a polymerizable liquid composition. The polymerizable liquid composition contains at least a precursor for said polymer, where the precursor including functional groups selected from any one of acrylates, methacrylates, epoxies, vinyl ethers, allyl ethers, and oxetanes. The polymerizable liquid composition also includes at least one phosphorous group such that that the polymer includes the phosphorus group as a functional group.

As noted in the previous Amendment, the composition of the present invention provides advantages over prior art flame retardant cables. For example, the polymerizable liquid composition including functional groups of acrylates, methacrylates, epoxies, vinyl ethers, allyl ethers, and oxetanes generates functional cross-linakable resins applied to the surface of cables by dipping, spraying or brushing.

These polymerizable functional resins present good mechanical properties, in particular good elasticity (high breaking elongation), and also improved hardness.

Additionally, the inclusion of the phosphorus group in the polymerizable liquid composition allows the phosphorus to be incorporated as a functional group of the polymer. This provides added stability to the phosphorus in the flame retardant material.

The cited prior art, namely Hasegawa discloses a halogen free flame retardant resin composition. However, the resin referred to throughout is thermoplastic, such as polyethylene (PE), not a functional cross-linakable resin. For example, see column 2, lines 41-54. This coating of Hasagawa is configured to provide a modified insulator that has improved fire resistance equal to PVC.

However, Although phosphorus (red phosphorus) is used as an auxiliary flame-retardant it is simply included into the composition. It is not included however as a

functional group of the polymer. See column 4, lines 29-38 of Hasegawa. This phosphorus is simply included in the composition without chemical reaction with the polymer, unlike the present invention that includes a phosphorous group directly in the polymer by way of its inclusion in the polymerizable liquid composition.

As such, the Hasegawa reference does not teach or suggest the present invention as claimed because it does not include a polymerizable liquid composition with at least one phosphorous group such that that the polymer includes the phosphorus group as a functional group.

The Examiner further cites to the Hall reference which is directed to flame retardant polymer compositions. However, there is nothing in hall regarding cross-linkable resin as taught by the present invention, nor is there a teaching to include phosphorus as a functional group of a polymer.

As such, Applicant respectfully submits that the cited prior art, either alone or in combination with one another do not teach or suggest the present invention as claimed. For example, there is no teaching or suggestion in either Hasegawa or Hall, either alone or in combination with one another, that discloses a polymerizable liquid composition with at least one phosphorous group such that that the polymer includes the phosphorus group as a functional group.

Applicant respectfully requests that the rejection of independent claim 1 be withdrawn. Also, as claims 2-18 depend therefrom, Applicant requests that the rejection of these claims be withdrawn as well for the same reason.

In view of the forgoing, Applicant respectfully submits that the present invention as claimed is now in condition for allowance, the earliest possible notice of which is

earnestly solicited. If the Examiner feels that a telephone interview would advance the prosecution of this application she is invited to contact the undersigned at the number listed below.

Respectfully submitted

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Dated: 1-9-06 By: _____

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